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Subject:	DEQ Comments re: RD 3 Sed Trap FSP
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Chip & Eric,
Here are DEQ's comments re: the LWG's 3/06 "RD3 FSP- Sediment Traps".

General Comments

1) Round 3 Cores- Although the proposed sediment traps will be deployed for one year & sampled quarterly, they will not necessarily capture extreme, high-flow events such as the 1995 & 1996 floods. Significant amounts of sediment, & perhaps sediment from different provenances, can be transported into the Study Area during these extreme, high-flow events. Sediment transported into the Portland Harbor Study area in these relatively recent, historic, extreme, high-flow events can be evaluated by the Round 3 radioisotope cores mentioned on page 3 of the FSP. We understand these cores will be collected during Round 3. It is important that this core work be designed & implemented to adequately provide empirical evidence of chemical concentrations in sediment deposited during past, high-flow events.

2) Bed Load- The FSP sampling design focuses on evaluating suspended load. However, based on the presence of sand waves in Portland Harbor evident in the bathymetric studies, bed load transport may be a significant transport mechanism. The proposed FSP study design will not characterize the bed load component. Since the suspended load tends to be comprised of finer-grained particles (e.g., silt & clay) & many of the contaminants tend to be associated with the finer-grained sediment fraction, it is possible that the chemistry of the suspended sediment load is different than the bed load sediment. The FSP should establish why the suspended sediment is the appropriate measurement for the data uses identified in the plan, or the FSP should be modified to include characterization of the bed load fraction.

3) Background- In several places in the FSP (e.g., pages 2, 3, & 4), the LWG states that the proposed sediment trap data will be used to inform characterization of background conditions. The sediment traps proposed at RM 11 will help evaluate sediment coming into the Study Area from upstream, but not necessarily background. On page 4 of the FSP, the LWG states that sediment transported into the Study Area from upstream can be one factor in determining the long-term concentrations of chemicals in depositional areas after sediment cleanup has taken place, & thereby help establish chemical concentrations below which bedded sediment cannot be remediated through actions taken entirely within the Study Area. We agree with the LWG's statement, but want to distinguish between "background" (in this case, ambient, system-wide contaminant levels) & elevated contaminant concentrations outside of the Study Area.

Specific Comments

1) Section 1.1, item #3- One of the objectives is to evaluate ongoing sources such as storm water, direct discharge, & bank erosion. The LWG should recognize that upland source control will continue during the sediment trap deployment, so inputs to the river may be decreasing & may not be reflective of on-going sources after remedy implementation.

2) Section 2.2, number of sediment traps- Additional sediment traps at RM 2, 11, & 16 would provide more representative data for evaluating the suspended load entering & leaving the Study Area. The proposed single sample at each location elevated uncertainty, especially if the data will be used to make significant project decisions. We suggest deploying 3 sediment traps (1 on each of the 2 river banks & 1 in the navigation channel) at each of the sampling stations at RM 2, 11, & 16.

3) Section 2.2, DEQ's Priority 1 list- There may be some confusion between "DEQ's Priority 1 list" and DEQ's Tier 1 list. The text or Table 2.1 should include a list of site on the "DEQ's Priority 1 list".

4) Section 4.0, river flow- A record or plot of river flow during the sediment trap deployment period should be used in the evaluation of the data.

5) Figure 2-1 series- The dashed lines should be labeled in the key.

6) Figure 2-1a- Sample ST001 should be located nearer to the shore at OSM & perhaps slightly farther downstream.

7) Figure 2-1b- Sample W009 seems to be mis-labeled. The correct label should be ST009.

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